

# CV

Kalle Valo

## Name and contact information

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Homepage: <http://www.valot.fi/kalle/>  
Time and place of birth: 1977-06-16 Paimio, Finland  
Nationality: finnish  
Marital status: married, two daughters (ages two and four)

## Areas of specialisation and interest

- 9 years of professional experience of Linux, 13 years as a hobby
- 9 years of professional programming experience, of which three years Linux kernel programming
- Enthusiastic Open Source supporter and contributor
- Embedded and mobile devices
- Data communications and protocols: IEEE 802.11, TCP/IP

## Work experience

### Kernel Engineer, Nokia Oyj 1.9.2006-present

Responsible for Wi-Fi device drivers and lower level user space components, as well as tests and calibration executed in production lines for Nokia 770, N800, N810 and N900 Linux based Internet tablets. The work includes design, implementation, bug fixing and acting as the primary technical contact for the hardware vendors.

Working with ARM based TI OMAP SoC 1710, 2420 and 3430 platforms on embedded devices, with taking into account the constraints (for example power consumption). Knowledge of the SPI bus.

The original idea, design and implementation of using mac80211 architecture in Nokia internet tablets. For N800 and N810, the driver stlc45xx published under GPLv2 at <http://stlc45xx.garage.maemo.org/> and now worked on as an open project. For N900, with TI wl1251 chipset the driver is wl12xx and it was published in February 2009. Implemented mac80211 improvements needed by the mobile devices, for example power save mode support and beacon filtering.

### Software Design Engineer, Nokia Oyj 15.5.2004-31.8.2006

Working on Nokia Internet tablets as an integration and testing engineer in the Connectivity team at Open Source Software Operations. Design, implementation and maintenance of various network related components, including proprietary Internet Connectivity Daemon (icd), dnsmasq and udhcp. Debian packaging.

Designed and implemented libconic, a public API for accessing Internet connections in Nokia Internet Tablets: [http://maemo.org/api\\_refs/4.0/libconic/](http://maemo.org/api_refs/4.0/libconic/)

Involved with Wi-Fi certifications, running tests and solving problems.

**System Architect, Radionet Oy** 7.3.2003-30.4.2004

Designing and implementing Rose, an in-house embedded Linux distribution for Wi-Fi environments. Developing software for Wi-Fi base stations. CVS administrator and build engineer. Technical responsible in Tekes funded Vertical Handover project.

**Network Specialist, CRF Box Ltd.** 10.5.2001-14.12.2001

Administration of Linux servers and project installations, including WAP/SMS gateways, Apache Tomcat Java Servlet containers and IBM DB2 databases.

**Software Developer, Wapit Ltd.** 3.1.2000-27.4.2001.

Developing methods for authentication and billing for mobile devices in Java. Developing WAP and SMS services. Product installations both in-house and with customers. Product testing and problem solving. Administration of intranet servers.

**Summer Employee at IT-department, Evac Ltd.** 24.5.1999-31.8.1999.

User support and guidance. Windows workstation and server installation and administration.

**Trainee in IT-support, Varsinais-Suomen TE-keskus** 15.10.1997-31.8.1998.

User support and guidance. Windows workstation and server installation and administration. Designed scalable virus protection setup for a multi-site network.

## Education

- 2010 (est.) Helsinki University of Technology, department of  
Electrical and Communications Engineering  
(major Software Engineering, minor Telecommunications Software)  
Estimated graduation January 2010, Master of Science degree,  
currently working on Master's thesis, pending final review,  
studying part-time while working
- 1996 Matriculation examination, Secondary school of Paimio

## Technical skills

**Programming languages** C, Python, shell-scripts, ARM assembly, plus various others (C++, Java, Perl)

**Networks and protocols** LAN administration, TCP/IP, HTTP, SMTP, DNS, IPv6, IEEE 802.11 (Wi-Fi), IEEE 802.1x, PKI

**Documentation** HTML, CSS, SGML, XML, Docbook, L<sup>A</sup>T<sub>E</sub>X

**Software/UNIX** GCC, GDB, GTK+, GLib, Emacs, VI, Make, UNIX-tools, Git, Stgit, Subversion, CVS, Autoconf, Automake, Dpkg, Apt

**Operating Systems** Linux (both as user and administrator), Windows 95/NT/XP (mostly as administrator)

## Hobbies

- Spending time with the children
- Working in Linux wireless community, maintainer of at76c50x-usb wireless driver, contributor to mac80211
- Administration of a personal server <http://www.valot.fi/> and workstations running Debian

## Language skills

Finnish: mother tongue  
English: very good  
Swedish: fair  
German: basic